MEMORANDUM

INTERMOUNTAIN POWER SERVICE CORPORATION

TO: George W. Cross

FROM: Dennis K. Killian

DATE: November 6, 2003

SUBJECT: Unit 2 Burner Contract Adders

We recommend a material upgrade, a modified flow diffuser design and an additional amount for upgrading the burner air flow instrumentation system within the Unit 2 Burner Replacement capital project. There is $4,500,000 budgeted for this year for burner replacement and $420,000 for scanner replacement. Both of these projects are being handled under the ABT Contract. The original ABT material contract was for $2,449,660 and these adders will bring it to a total of $2,566,480. The installation contract is yet to be awarded. The burner replacement project was justified with an 18 percent rate of return and a 0.9 year payback.

The successful bidder for the Unit 2 Burners (ABT) provided, within their bid offering, several alternate design options on which we have now concluded our evaluations. The adders shown on the attached requisition are as follows:

- Upgraded burner materials
- Independent coal flow diffuser
- Upgraded air flow instrumentation

Upgraded Burner Materials

ABT has proven to have an excellent record in eliminating burner deformation at all installations to-date. However, the IGS burners are slightly larger and will be exposed to somewhat higher heat flux than ABT has seen. The 253 MA material is our current choice in the most severe applications at the burner front. It has provided the best service of any alloy, including stainless. The approximate $41K for upgrading to this material is a relatively small price to pay for a significant degree of component life assurance.

Independent Coal Flow Diffuser

The original design of the ABT burners included an in-built flow diffuser in the burner elbow. This assembly required all burner elbows to be shipped off-site for modification. In addition to concerns for the outage schedule, this would also have made the diffuser replacement procedure both complicated and expensive.